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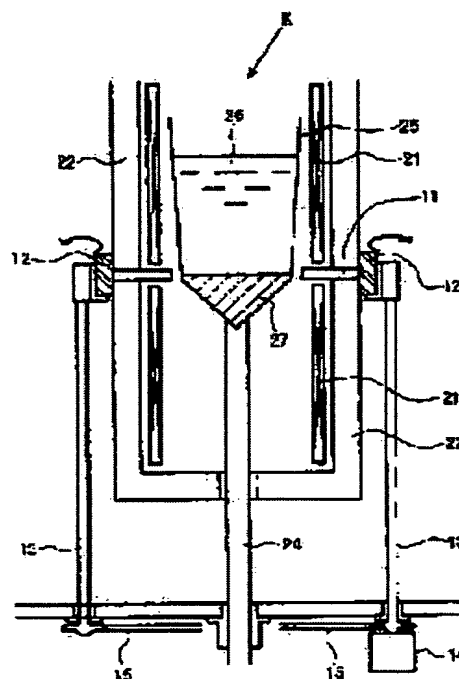
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## (54) APPARATUS FOR PRODUCTION OF FLUORITE SINGLE CRYSTAL AND ITS PRODUCTION

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an apparatus for producing a fluorite single crystal capable of producing the fluorite single crystal having a large diameter and high quality usable as an optical material for a stepper at a good yield and a process for producing the same.

**SOLUTION:** This apparatus for producing the fluorite single crystal has a crucible 25 which houses fluorite raw materials, a mechanism 24 which perpendicularly lowers this crucible 25 in a crystal growth furnace K, heating mechanisms 21, 21' which heat up the inside of this crystal growth furnace K and a heat shielding plate (partition section) for forming a temp. gradient (temp. inclination) around the m.p. of the fluorite raw materials in the crystal growth furnace K. The apparatus described above is provided with the heat radiating mechanism or cooling mechanism for the heat shielding plate (partition section).



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